
Inter-module internal cabling

Cables that are routed internally between modules are intermediate cables. They are used primarily for interconnecting CPU to CPU, CPU to network, network to network, network to PE, and the system monitor to the different modules.

Cabling assignment tables are found in Appendix B.

CPU to CPU

Meridian 1 options 61, 61C, 71, 81, and 81C consist of a dual CPU. Options 21, 21A, 21E, 51, and 51C consist of a single CPU and are not discussed here.

The CPU modules used in an option 71 configuration must be at the same module level in adjacent columns. This is because the cable length between the CMAs in the two CPUs is a maximum of 5 feet. Cabling for the mass storage unit is similar to the MDU or FDU in either CPU module. Table 42 on page 167 provides the cabling assignment for the CPU module configuration.

The CPU/network module contains the same CPU as the CPU module. Cabling is similar, but the two CPU/network modules are set one on top of the other. Table 45 provides the cabling assignments between two CPU/network modules.

In the option 81C, similar to option 81, the core/network modules must be at the same lower two module level in adjacent columns.

Network to network

Cabling between NT8D35 Network Modules or NT6D39 CPU/Network Modules interconnects the two half groups together to build an option 61, 71, or 81 full-network group. The first full-group in option 81C is located in the Core/Network Module together with the CPU. The maximum length of the interconnecting cables between the two modules is 2 feet. The two half-group network or CPU/network modules must therefore be stacked one on top of the other. The cables are then routed from the backplane of one module to the backplane of the other through the vertical holes in the rear horizontal cable trough of the modules. Table 43, “Cabling between two NT8D35 XNE Modules,” on page 167 gives the cabling assignment for this configuration.

In the case of an option 81C upgraded from an SL-1 type cabinet (QCA55), all network group shelves have to be relocated in the Meridian 1 modules when the core/network modules and expanded network group are installed.

Cabling more than one network group together into a multi-group configuration requires the use of intergroup switch (IGS) cards and the NT8D36AA InterGroup Module. Table 44, “Network to junctor cabling,” on page 168 provides the cabling assignment and [Figure 34](#) shows a simple view of a multi-group configuration.

CPU to network

The interface between the CPU and the network is different for options 51, 51C, 61, and 61C and options 71, 81, and 81C. The option 51 can be configured from a half-network group up to a single full-group network called option 61. Options 71, 81, and 81C can be configured to include from one to five full-group networks in full-group increments. Options 11 and 21/21E do not use this interface and are not discussed here.

Half-group network

The CPU/network module interfaces the CPU and the network together over the backplane. There are no interface cables required between these two subsystems when configured as a half-group option 51.

Figure 34
Simplified view of network to junctor cabling for options 71 and 81

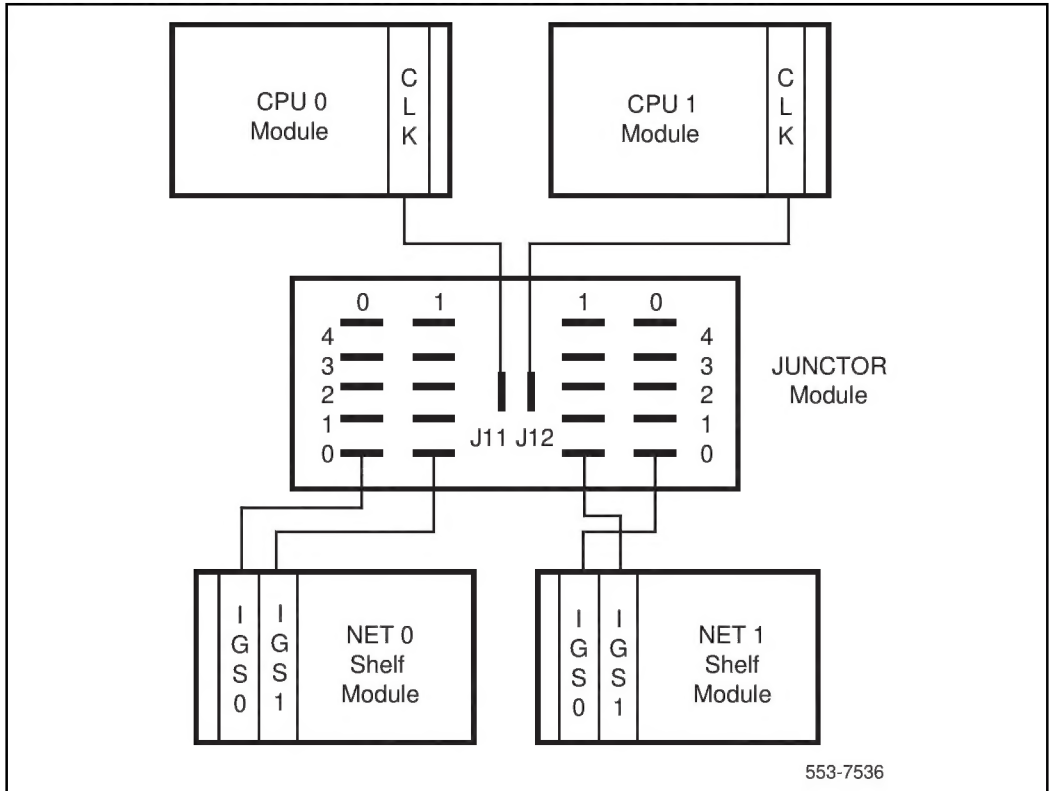
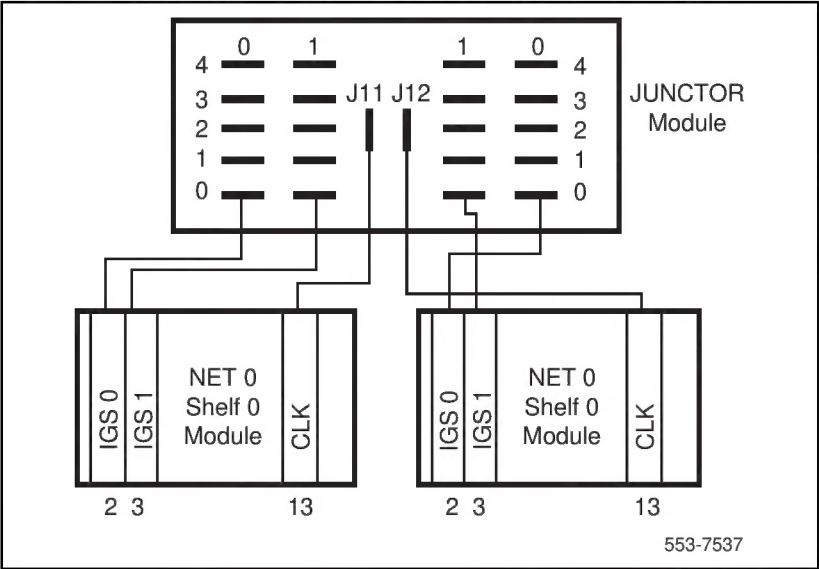


Figure 35 shows a simplified view of network to junctor cabling for option 81C where the clock controller card is located in the network module.

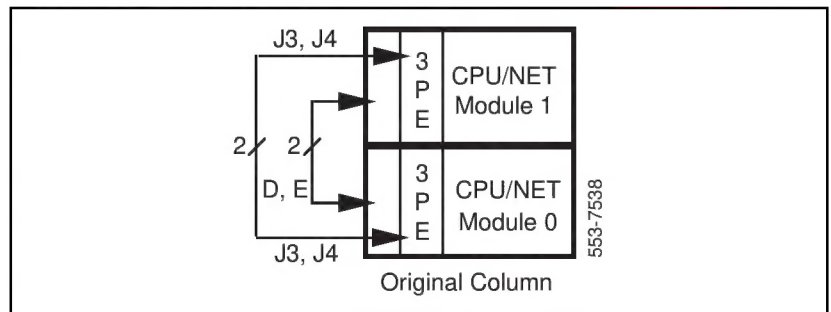
Figure 35
 Simplified view of network to junctor cabling for option 81C



Full-group network

When a full-group configuration in CPU/network modules is provided, the two half-group networks must be interconnected. This is done by connecting two cables on the network side of the backplane between the two modules. Cable routing is through the small square vertical holes in the rear horizontal cable trough of the modules. Table 45, “System option 61 cabling,” on page 169 gives the cabling assignments and [Figure 36](#) gives a simplified connection view.

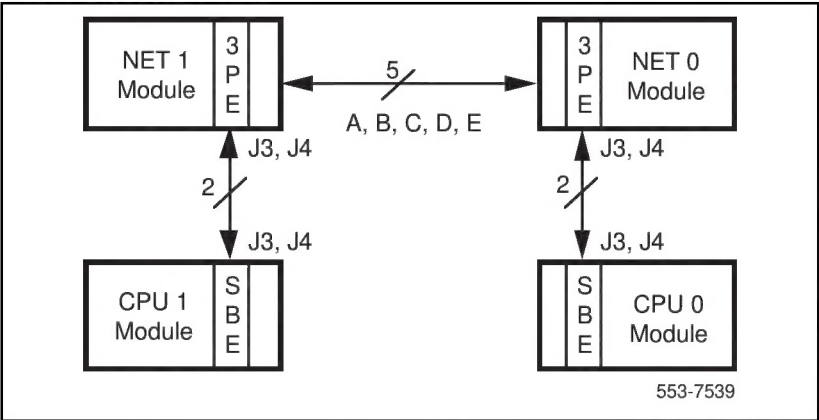
Figure 36
Option 61 configuration



CPU to network

The CPU can access up to five full-group networks in the option 71. Each group is configured exactly the same way with device address switches on the 3PE and SBE defining group 0 to group 4. The network modules are cabled as full groups, as defined in the network to network cabling section. The length of the signal cables used to interface the SBE to the 3PE (NT8D80) is dependent on how the modules are configured in the system and is not listed here. Table 46, “System option 71 XSCPU to XNE cabling,” on page 170 gives the cabling assignment and [Figure 37](#) gives a simplified cabling schematic.

Figure 37
Option 71 full group

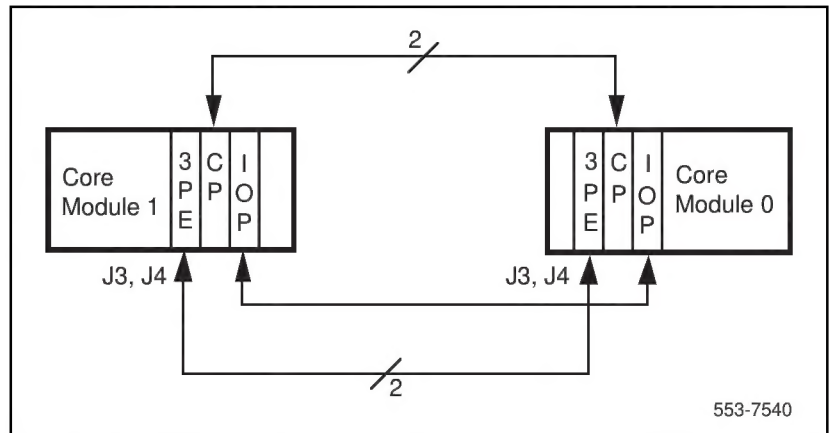


Core module to core module

The core module can access up to five full-group networks in the option 81. Each group is configured exactly the same way with device address switches on the 3PE defining group 0 to group 4. The network modules are cabled as full groups, as defined in the network to network cabling section.

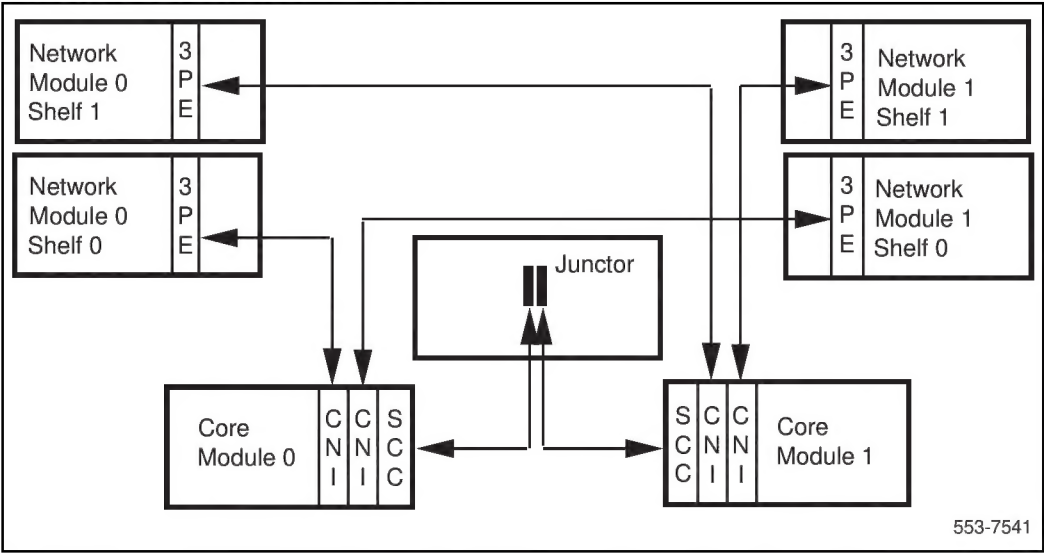
[Figure 38](#) illustrates the basic core module to core module cabling.

Figure 38
Option 81 basic configuration



For a multi-group system, which requires a junctor module to expand to the maximum five-group configuration, a different cabling scheme is used, as illustrated in [Figure 39](#)

Figure 39
Option 81 multi-group configuration



Core/Network Module to Core/Network Module

The core/network module can access up to five full-group networks in the option 81C. Each group is configured exactly the same way with device address switches on the 3PE defining group 0 to group 4. Group 0 is located in the Core/Network Modules. The network modules are cabled as full groups, as defined in the [“Network to network” on page 44](#).

Figure 40
Option 81C basic configuration

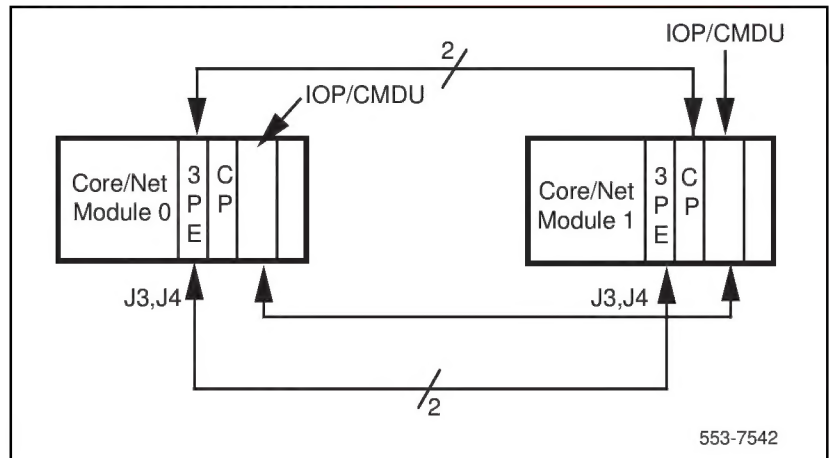
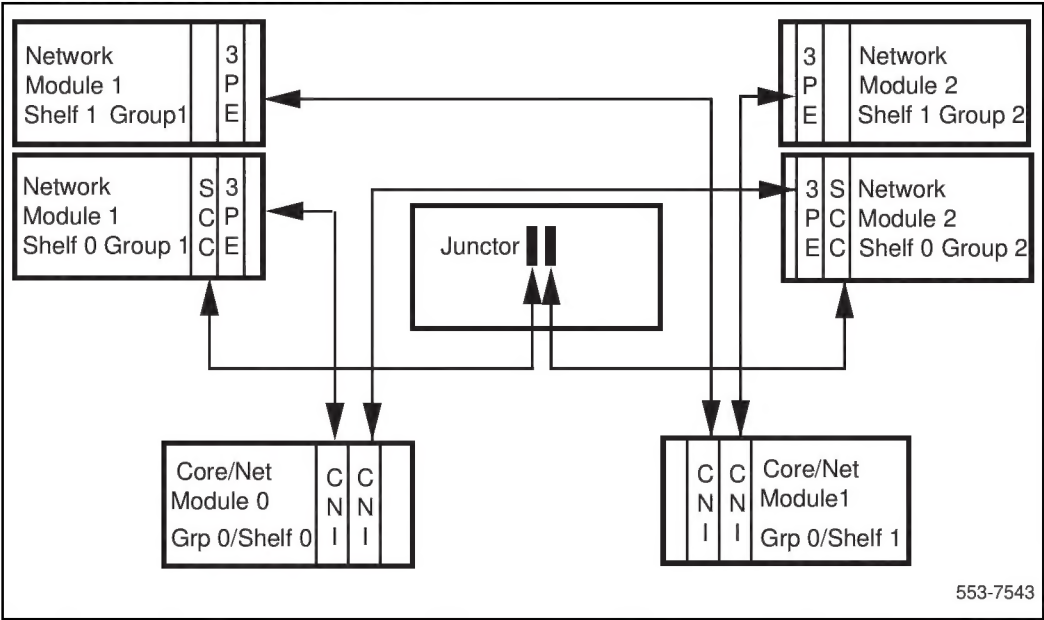


Figure 41
Option 81C multi-group configuration



Network to PE

Cabling between the network and the PE modules is the same for all options. The cabling, however, may vary depending on traffic and any special requirements of the PE modules.

Table 47, “Network to PE cabling,” on page 171 defines all of the possible cabling variations for network to PE modules. Cabling of network to IPE peripherals is different from PE cabling: The cable connects to the backplane in the IPE module instead of the faceplate of the DLB as in the PE module.

